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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,726	11/12/2003	Peter Streuer	054821-0877	7254
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FOLEY & LARDNER LLP 777 EAST WISCONSIN AVENUE MILWAUKEE, WI 53202-5306			EXAMINER LEWIS, BEN	
			ART UNIT 1745	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/706,726

Applicant(s)

STREUER, PETER

Examiner

Ben Lewis

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-10 and 12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1)

With respect to claims 1 and 2, Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure).

Krabatsch et al. teaches an acid cage **7** "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

With respect to claim 10, Krabatsch et al. teach that annular grooves **4** and **6** are indented, into which O-rings **5** are inserted, in order to seal part **21** with the inner wall of the cover **1** (See Figure) (See Page 2 lines 8).

Claim Rejections - 35 USC § 103

4. Claims 4-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1) in view of Spaziante et al. (U.S. Patent No. 4,201,647).

With respect to claims 4 and 12, With respect to claims 1 and 2, Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings **9** and **19** and **18** (See Figure).

Krabatsch et al. teach an upper part **21** with opening **18** to the outside and a lower part **7** (See Figure). Opening **18** is also connected to the splash basket **7** (See Figure).

Krabatsch et al. teaches an acid cage 7 "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

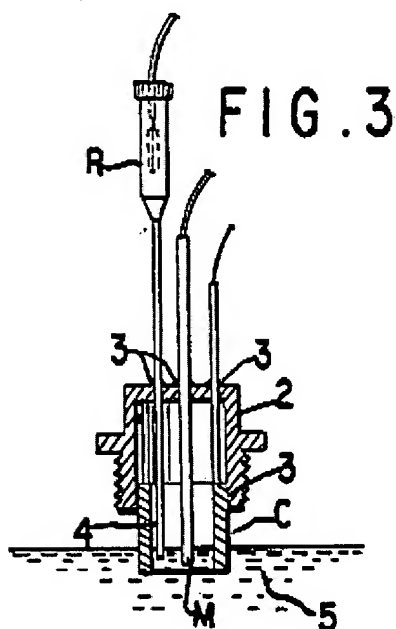
Krabatsch et al. do not disclose at least one of as state of charge indicator and acid level indicator attached to the upper part of the sealing plug and passing through the lower part of the sealing plug cavity.

However, Spaziante et al. discloses measuring electrodes and process (title) wherein, considering the discharging voltage characteristics of a lead battery, it is evident that the voltage determination cannot give a reliable indication of the charge condition of the battery since even near full discharge the voltage is almost the same as that of a fully charged battery. A reliable method to assess the charge condition is to

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measure the acid concentration (Col 2 lines 4-20). Spaziante et al also teach that in FIG. 3, the assembly is comprised of a measuring electrode M, a counter-electrode C for activating the measuring electrode M by anodic polarization of the same in an acidic or basic solution and a reference electrode R (Col 6 lines 5-16). The measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65) (See Fig. 3).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the battery level/charge indicator of Spaziante et al into the battery plug of Krabatsch et al. because Spaziante et al teach that the measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65).



With respect to claim 5, Krabatsch et al. as modified by Spaziante et al. discloses a plug for an accumulator "battery" (See Figure). Krabatsch et al. is silent as to the roughness of the splash guards. However, it is the position of the examiner that such properties are inherent, given that the materials of construction of the plug of Thomas et al. have an inherent roughness. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Robertson, 49 USPQ2d 1949 (1999).

With respect to claims 6 and 7, Krabatsch et al. as modified by Spaziante et al. discloses a plug for an accumulator "battery" (See Figure. Spaziante et al also teach that in FIG. 3, the assembly is comprised of a measuring electrode M, a counter-

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electrode C for activating the measuring electrode M by anodic polarization of the same in an acidic or basic solution and a reference electrode R (Col 6 lines 5-16). The measuring assembly constituted by the three electrodes placed in the electrolyte of the battery is moreover useful in detecting and eventually signaling the lowering of the level of the electrolyte below the recommended minimum (Col 9 lines 45-65) (See Fig. 3).

The instant specification recites the state of charge indicator and/or electrolyte level indicator may also have a roughened surface (Paragraph 0019). Thomas et al and Spaziante et al are silent as to the roughness of the charge indicator and/or electrolyte level indicator. However, it is the position of the examiner that such properties are inherent, given that the materials of construction of the charge indicator and/or electrolyte level indicator of Thomas et al. and Spaziante et al have an inherent roughness. A reference which is silent about a claimed invention's features is inherently anticipatory if the missing feature is necessarily present in that which is described in the reference. In re Robertson, 49 USPQ2d 1949 (1999).

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krabatsch et al. European Patent No. (DE 33 30 823 A1) in view of Richter et al. (U.S. Patent No. 6,733,921 B2).

With respect to claim 8, Krabatsch et al. discloses a plug for an accumulator "battery". The plug has degassing openings 9 and 19 and 18 (See Figure).

Krabatsch et al. teach an upper part 21 with opening 18 to the outside and a lower part 7 (See Figure). Opening 18 is also connected to the splash basket 7 (See Figure).

Krabatsch et al. teaches an acid cage 7 "splash basket" having an inner diameter that increases from the free end to the upper end of the acid cage and slots continuing as far as the free end of the splash basket (See Figure) (See page 2 line 1-10).

With respect to the shape of the slots, Krabatsch et al. do not specifically teach wherein each of the slots has a width that broadens with increasing distance from the free end of the splash basket. Unless applicant shows criticality for the claimed features, changes in size and shape is obvious absent a showing of unexpected results.

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.).

It is noted that applicant's slot widths and basket shape appear to be similar to, if not identical to that shown in the Figure in DE 3330823.

Krabatsch et al. do not specifically teach that the sealing plug is formed from an electrically conductive plastic. However, Richter et al. disclose a rechargeable electric battery (title) wherein a rechargeable electric battery including a plate block arranged in a plastic block box, positive and negative electrodes located in the box and electrically isolated by separators and conductively connected by sulfuric acid electrolyte, a cover

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for the box which has closure plugs and/or acid state indicators fitted in a gas-tight manner to openings therein, wherein at least a portion of an inner surface of the battery is electrically conductive or is provided with an electrically conductive layer, beginning in an area of a sealing seat of the closure plug or of the acid state indicator, and is electrically conductively connected to the electrolyte (Col 2 lines 35-47). Richter et al. also teach that the electrical connection between closure plug and acid is provided by immersing the lower part of the plug into the electrolyte or via parts of the rechargeable battery which provide an electrical connection to the acid, or via an active capillary wick which effects the connection to the electrolyte (Col 4 lines 10-20).

With respect to the sealing plug formed from electrically conductive plastic, Richter et al. teach that the plug can be composed of, for example, corrosion resistant metal, conductive plastic, carbon (graphite, pyrolytic carbon), plastic doped with carbon powder or carbon fibers or conductive ceramic material (Col 3 lines 60-67).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the conductive plastic material of Richter et al. as sealing plug material in Krabatsch et al because conductive plastic material is resistant to the corrosive internal environment of batteries.

With respect to claim 9, Krabatsch et al teach that the acid level in the accumulator is at 8 which is higher than the bottom of the splash basket 7 (See page 2 line 3) (See Figure).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben Lewis whose telephone number is 571-272-6481. The examiner can normally be reached on 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ben Lewis

Patent Examiner
Art Unit 1745


SUSY TSANG-FOSTER
PRIMARY EXAMINER